

What is claimed is:

*was* 1. A probiotic composition comprising Lactobacillus casei strain KE01 having ATCC accession number \_\_\_\_\_, wherein said Lactobacillus casei strain KE01 is derived from a substantially pure culture.

2. The probiotic composition according to claim 1 further comprising inert or active ingredients selected from the group consisting of carbohydrates, polypeptides, lipids, phytochemicals and combinations thereof.

3. The probiotic composition according to claim 2 wherein said carbohydrate is selected from the group consisting of monosaccharides, disaccharides, oligosaccharides, polysaccharides and combinations thereof.

4. The probiotic composition according to claim 3 wherein said carbohydrate is selected from the group consisting of trehalose, maltose, sucrose, dextrose, lactose, inulin, ribose and combinations thereof.

5. The probiotic composition according to claim 3 wherein said disaccharide is trehalose dihydrate. *obv sel.*

6. The probiotic composition according to claim 3 wherein said oligosaccharide is fructo-oligosaccharide.

7. The probiotic composition according to claim 3 wherein said polysaccharide is malt dextrin. *sel*

8. The probiotic composition according to claim 2 wherein said polypeptide is selected from the group consisting of whey protein, egg albumin, gelatin, milk proteins, and combinations thereof.

9. The probiotic composition according to claim 2 wherein said lipid is selected from the group consisting of soy bean oil, olive oil, palm kernel oil, peanut oil, walnut oil, canola oil and combinations thereof. *sel*

10. The probiotic composition according to claim 2 wherein said phytochemical is selected from the group consisting of polyphenols, saponins, flavanoids, monoterpenes, allyl sulfides, lycopenes, carotenoids, polyactetylenes, silymarin, glycyrrhizin catechins and combinations thereof. *sel*

11. The probiotic composition according to claim 1 further comprising trehalose.

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12. The probiotic composition according to claim 11 further comprising malt dextrin. *free*

13. The probiotic composition according to claim 11 further comprising fructo-oligosaccharide.

14. The probiotic composition according to claim 13 wherein said Lactobacilli casei strain KE01 is present in the amount of approximately  $10^5$  to  $10^{11}$  colony forming units (CFU) per gram.

15. The probiotic composition according to anyone of claims 1 through 14 wherein said probiotic composition is a bolus, gel or liquid that is administered to an animal.

16. The probiotic composition according to claim 15 wherein in said animal is selected from the group consisting of mammals, fish, birds, and reptiles.

17. The probiotic composition according to claim 16 wherein said mammal is selected from the group consisting of humans, horses, dogs, cats, rabbits, sheep, swine, and cows.

18. The probiotic composition according to claim 16 wherein said bird is selected from the group consisting of chickens, turkeys, pheasants, quail, parakeets, and parrots. *obv. mod.*

19. The probiotic composition according to claim 15 wherein said bolus is selected from the group consisting of gelatin capsules, pressed tablets, and gel caps.

20. The probiotic <sup>composition</sup> according to claim 19 wherein said bolus is packaged in a polymer-lined foil pouch. *free*

*Surge* 21. A probiotic composition comprising:  
powdered Lactobacillus casei strain KE01 having ATCC accession number \_\_\_\_\_ in the amount of from approximately 1 to 5 weight percent;  
a disaccharide from approximately 25 to 95 weight percent;  
an oligosaccharide from approximately 0 to 10 weight percent; and  
a polysaccharide from approximately 0 to 50 weight percent.

22. The probiotic composition of claim 21 wherein said powdered Lactobacillus casei strain KE01 having ATCC accession number \_\_\_\_\_ has approximately  $10^5$  to  $10^{11}$  CFU per gram and is present in the amount of approximately 3 weight percent.

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23. The probiotic composition of claim 21 wherein said disaccharide is present in the amount of approximately 62 weight percent. *fr*

24. The probiotic composition of claim 21 wherein said oligosaccharide is present in the amount of approximately 5 weight percent. *fr*

25. The probiotic composition of claim 21 wherein said polysaccharide is present in the amount of approximately 30 weight percent. *fr*

26. The probiotic composition of claim 21 wherein said disaccharide is trehalose, said oligosaccharide is fructo-oligosaccharide and said polysaccharide is malt dextrin. *fr*

27. A probiotic composition comprising:  
approximately 3 weight percent of powdered Lactobacillus casei strain KE01 having ATCC accession number \_\_\_\_\_ having approximately  $10^5$  to  $10^{11}$  CFU per gram;

approximately 62 weight percent trehalose;  
approximately 5 weight percent fructo-oligosaccharide; and  
approximately 30 weight percent malt dextrin.

28. A method of inhibiting enteric pathogen disease in an animal comprising:  
administering an effective amount of the probiotic compositions according to any of claims 1, 11, 12, 13, 20 or 26 to an animal in need thereof.

29. The method according to claim 28 wherein said enteric pathogen is selected from the group consisting of enteropathogenic Escherichia coli (EPEC), enterotoxigenic E. coli (ETEC), Salmonella enteritidis, Yersina pseudotuberculosis and Listeria monocytogenes.

30. The method according to claim 28 wherein said animal is selected from the group consisting of mammals, fish, birds, and reptiles.

31. The method according to claim 30 wherein said mammal is selected from the group consisting of humans, horses, dogs, cats, rabbits, sheep, swine, and cows.

32. The method according to claim 30 wherein said bird is selected from the group consisting of chickens, turkeys, pheasants, quail, parakeets, and parrots. *okv, mod*

33. The method according to claim 28 wherein said administering step further comprises a probiotic compositions selected from the group consisting of gelatin capsules, pressed tablets, gel caps, animal feed and liquid beverages.